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REMARKS ON SMALLPOX, COWPOX AND VARIOLOID.

BY GEORGE HAYWARD, M.D.

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SMALLPOX and varioloid have prevailed to some extent in this city during the last few months. No small degree of anxiety has been felt in relation to the protective power of the vaccine disease, and numerous inquiries have been made of professional men on this point.

As the recent epidemic has in a great measure disappeared, and no alarm exists at this time, it may not perhaps be amiss to inquire as to the present state of knowledge in regard to variolous diseases.

It is now, I believe, the opinion of most professional men that smallpox is cowpox in a milder form, having been modified by passing through the system of the cow.* Dr. Jenner believed this, but was never able to communicate smallpox to the cow. Mr. Ceely, of Aylesbury, however, did in 1839, and from the disease thus produced, obtained genuine vaccine virus. The experiment was successfully repeated by a distinguished physician in this vicinity, Dr. Horatio Adams, of Waltham. In an address to the Massachusetts Medical Society, he has stated the result of his experiments, and given much other useful information in relation to vaccination. His paper is able, instructive, and interesting.

It is now admitted by most physicians, that those who have been duly vaccinated are as well protected from the smallpox, as those who have had the latter disease *by inoculation*.

* The above was written before the appearance of the paper in a late number of this JOURNAL, by Dr. Cutter, of Woburn. He made, it seems, several unsuccessful attempts to communicate smallpox to the cow by inoculation. He succeeded, however, in producing the vaccine disease. The object of the paper he states to be "to show that vaccinia is not varioloid, or cowpox modified smallpox." Negative evidence derived from a series of unsuccessful experiments cannot outweigh that of a positive character, such as is produced by Mr. Ceely and Dr. Adams. The language used by a writer in the *British and Foreign Medico-Chirurgical Review*, towards Prof. Hering, on this very point, seems applicable to Dr. Cutter. "He appears to attach far too much weight to the negative evidence derived from the repeated failures, although such evidence ought to yield to one well-authenticated and unexceptionable fact."

Dr. Jenner said, that vaccination, "duly and efficiently performed, will protect the constitution from subsequent attacks of smallpox, as much as that disease itself will. I never expected that it would do more, and it will not, I believe, do less."

The venerable Dr. Jackson, of this city, and there is no higher authority, in a report made to the Massachusetts Medical Society in June, 1808, says, "that in the opinion of this Society persons who undergo the cow pock are thereby rendered as incapable of being affected by the virus of smallpox, as if they had undergone the latter disease." More recent and extended experience has served to confirm these early opinions.

During the prevalence of the varioloid in Edinburgh, "Dr. Thomson saw, from June, 1818, to December, 1819, 556 cases." Of this number, "295 had had neither smallpox nor cowpox previously;" "41 had gone through the smallpox, and 310 had been vaccinated." "Of the first class, 50 died, nearly 1 in 4." "Of the 41 of the second class, which he himself saw, together with 30 others communicated by friends, in all 71, 3 died, 1 in 23 nearly." Of the third class, one only is reported to have died, and there is some reason to doubt whether death in this case was caused by varioloid. Dr. Thomson very justly remarks, that "proofs cannot be imagined more convincing and satisfactory of the efficacy of the practice of vaccination, and of the incalculable benefits bestowed upon mankind by its discoverer, than those I have had the pleasure of witnessing."

The experience of Dr. Cross, in the fatal epidemic which occurred at Norwich in 1819, is equally decisive in favor of the protective power of vaccination. "He kept a regular register of the effects produced by the contagion in 112 families, comprehending 603 persons. Of these, 297 had previously had smallpox, all of whom escaped; 91 had been vaccinated, of whom all, except 2, who had a mild affection, and one who had chickenpox, were protected." Of the remaining 215, who had neither had cowpox nor smallpox, 200 took the latter, and the remaining 15 resisted the contagion altogether. Of the 200 who took the smallpox, 46 died—nearly 1 in 4. This shows the virulence of the epidemic at that time, and it is also apparent from the fact "that in several instances adults caught the smallpox who had at various times resisted the intimate and continued exposure to the contagion of that disease. He mentions two clear cases of regular smallpox, the one after the natural, the other after the inoculated disease. He also met with a few cases of modified smallpox subsequent to smallpox. His correspondents informed him of many cases of secondary smallpox, three of which have been stated to have been fatal."

But if any further proof were wanting to show "that the protection afforded by vaccination duly performed is quite equal to that afforded by smallpox itself," it may be found in the report from the "Royal Military Asylum at Chelsea, embracing a period

of thirty years, from 1803 to 1833. During this time, 2,532 children were admitted, who were reputed to have had the smallpox, and 3,060 who had been vaccinated. The number who died during the whole period, at the asylum, of smallpox, was 5; of these, 3 had the disease after reputed smallpox, and 2 had never been vaccinated or undergone smallpox before."

Though no one, I think, who has examined the subject, will pretend that vaccination affords less protection than the *inoculated* smallpox, yet at the same time it must be admitted that neither cowpox or the inoculated smallpox in all cases prevents an attack of varioloid. It is no doubt true, that in many instances where this occurs after vaccination, it is due to the state of the patient's system at the time the vaccination is performed, and in others to the impurity of the virus used. The first of these causes was noticed by Dr. Jenner, and the other, though alluded to by him, has been frequently mentioned and insisted on by subsequent writers on the subject. This shows the extreme importance of having the operation done by skilful and competent persons, who are capable of judging whether the system is in a proper state, and whether the virus is of a genuine character.

It is, however, well known that varioloid will occasionally attack those who have been duly vaccinated, and also those who have been properly inoculated with the smallpox. Neither of these diseases in such cases seems to have been able to exhaust the entire susceptibility to the variolous infection; nor is there any reason to believe that re-vaccination or inoculating again with smallpox would do it. So that when such persons are exposed to the effluvia from variolous disease in a concentrated form, and which is thus carried into the circulation by the lungs, a modified disease, usually of a mild character, is sometimes the result. It is probably in this way that can be explained the fact that varioloid is less common after the natural than after the inoculated smallpox. A case came within my knowledge a few years ago, in which re-vaccination afforded no protection from varioloid. A gentleman was about visiting Europe with his children, all of whom had been duly vaccinated in early childhood. Shortly before his departure, they were carefully re-vaccinated without effect; but notwithstanding all this, some months later they were attacked with varioloid. Mr. Bryce, in a letter to Dr. Thomson, says, what I have no doubt is perfectly true, "that there are on record more instances of persons suffering severely, nay fatally, from what was considered to be a second attack of smallpox, than from smallpox after what has been considered perfect vaccination."

The opinion that the protective power of vaccination becomes exhausted or worn out in time, does not appear to be well founded. It is contrary to analogy, and rests on no well-authenticated facts. A statement of Dr. Adams, in the paper already referred to, is quite decisive on this point. He vaccinated 490 persons, and

found that "the least susceptibility seems actually to have existed among those whose vaccination was the most remote." This alone will probably be considered sufficient, but abundant other evidence might be adduced," if necessary, in support of this opinion.

It follows as a consequence from this, that when smallpox is prevailing in an epidemic form, a general re-vaccination is not required. When vaccination has been once duly performed, it gives the individual all the protection that can be derived from it; and in most cases this is complete. No one should be subjected to a troublesome, not inexpensive, nor always a perfectly safe operation, without good reason for doing it. Re-vaccination has produced very serious and alarming symptoms in many cases, and death has occasionally been the result of it. It is our duty to be satisfied that those who consult us have been properly vaccinated, and when this is the case, nothing more is required.

No human discovery can compare in value with that of vaccination. It is substituting a mild affection, attended with little or no pain or inconvenience of any kind, not expensive; requiring no confinement, communicable only by inoculation, and rarely, if ever, fatal, for a loathsome, painful and most destructive malady.

Dr. Baron says, that "from authentic documents and accurate calculations, it has been ascertained that one in fourteen of all that were born died of the smallpox. Of persons of all ages taken ill of the smallpox in the natural way, one in five or six died; whilst of those who had been inoculated, one only in fifty died. These conclusions were drawn by Dr. Jurin, from an examination of the London bills of mortality for a period of forty-two years." Though the inoculated smallpox is a much less fatal disease than the natural, yet the introduction of the practice of inoculation into Europe increased the mortality to a very considerable extent. For those who had it in a mild form, after they had been inoculated, did not feel it necessary to confine themselves at home, and thus communicated it to the unprotected, in whom it often exhibited its most malignant and fatal symptoms.

It appeared in evidence, before a committee of the British House of Commons, that in forty-two years previous to the introduction of the practice of inoculation for the smallpox, the average number of deaths by that disease in Great Britain was to the whole number as 72 to 1,000; but in the forty-two years after inoculation came into full use, the proportion was as 89 to 1,000.

If the statements made above are reliable, and I have full confidence that they are so, it follows—

1st. That cowpox is smallpox, in a modified and milder form.

2d. That an individual who has been duly vaccinated is as well protected from smallpox, as if he had had the latter disease by inoculation.

3d. That the influence of cowpox does not wear out; but that

when actually communicated to the system, its protective power continues through life.

4. That therefore, when smallpox prevails in an epidemic form, a general re-vaccination is not necessary; for it will give no additional protection to those who have already been duly vaccinated, but is troublesome, attended with some expense, and not wholly free from danger.

5th. That many of the cases of varioloid after cowpox are attributable to imperfect vaccination, and therefore that this operation should be entrusted to competent and skilful persons only.

March 20th, 1860.

A SUCCESSFUL CASE OF OVARIOTOMY.

BY A. B. CROSBY, A.M., M.D.

[Communicated for the Boston Medical and Surgical Journal.]

In the town of Franconia, N. H., and near the base of Mount Lafayette, there lived in the summer of 1859—and there *still lives*—a Mrs. S. R., a woman of intelligence, and the wife of a machinist, formerly of Providence, R. I. This lady consulted my father, Prof. Dixi Crosby, in the month of May, with regard to an ovarian tumor, of which she was the victim. After a critical examination, he advised her to submit to ovariectomy, and with a generosity—creditable to a parent, but unusual in a surgeon—he relinquished the case into my hands.

On the night previous to the operation, Aug. 27th, I derived from the patient the following history of her case. She was 36 years of age, and had been married eleven years. Two children were the fruit of this connection—a girl and a boy, respectively, ten and eight years of age. The father of the patient died of general dropsy at the age of 77. She lost her paternal grandmother at the age of 50, and an aunt at 60—both from the same disease. The patient menstruated at 14. At 16, she paddled with her feet in the cold water of a brook, and there was no catamenial discharge for a year afterwards. Aside from this, her health was good. She married at 25, and for six months previous had scanty, high-colored urine, and painful micturition. The first child was born in eleven months after marriage. The labor lasted sixteen hours, and was natural. In eighteen months after the first labor, the second child was born at eight months. Four weeks previous she slipped, and came near falling, by which she strained her back. The second labor occupied four hours and a half, and was natural. Menstruation has been regular ever since, recurring as often as every third week. The general health of the patient has been excellent during most of the time.

One night in February, 1854, she discovered a tumor, about the size of a small hen's egg, over the right ovary, and "played with it

some time." In the course of three months, the tumor became as large as "both fists." It began to be somewhat tender, and she consequently let it alone. At the end of six months, it had become a large symmetrical tumor, confined to the right side.

From the fact that she was troubled with nausea and vomiting, the patient supposed herself pregnant, although menstruation was regular during the whole period. At the commencement of the second year, she became debilitated and exhausted.

After the tumor had existed twenty-eight months, Dr. Bugby, of Littleton, N. H., tapped the patient, and drew away twenty-six and a half pounds of a perfectly limpid fluid, slightly glutinous. Great prostration ensued, and she was confined to her bed for a fortnight. At the expiration of thirteen weeks after the first tapping, Dr. Bugby removed from the cyst thirty and a half pounds of a fluid resembling almost precisely that of the former tapping.

In eight weeks the tumor was again as large as ever. She now took diuretics freely, and in the course of two or three days a profuse diuresis occurred, which reduced the size of the tumor one half. Fifteen months now elapsed, at the end of which time Dr. D. E. Wells, of Franconia, drew away thirty-five pounds of a limpid, viscid fluid, resembling the white of an egg. Dr. Wells tapped the patient, in all, twelve times, at regular intervals of three weeks and a half. The interval between the last two tapplings, however, was only a week and a half. At the last two operations only one half of the contents of the tumor was removed. The average quantity removed each time was thirty-five pounds. The fluid gradually became thicker, until towards the last it resembled fluid starch in color and consistence. Paracentesis was performed for the last time, August 16th.

At the time of the final operation, the tumor presented, externally, a perfectly symmetrical appearance. The abdominal wall was much attenuated, and so far distended that the patient could not see her feet when in the erect position. On applying one hand to the side of the tumor and communicating a sharp tap to the opposite side, a distinct wave could be felt. She had been troubled with umbilical hernia, but the abdominal wall could be raised at several points, and caused to slide over the surface of the tumor. The only pain which had occurred during the disease was of comparatively recent date.

The fearful risk of the operation, and the probabilities of a fatal issue in the case, were fully represented. But her courage was indomitable, and she met the issue with great firmness and cheerfulness. Her genuine old Saxon *pluck* under the impending danger excited the undisguised admiration of all who witnessed it.

The bowels having been thoroughly evacuated by castor oil, and some lines drawn across with nitrate of silver at right angles to the linea alba, to serve as a guide for the sutures, the operation was performed on Sunday morning, Aug. 28th, at 9½ o'clock, A.M.

There were present, Prof. D. Crosby, Dr. Bugby, Senior, of Waterford, Vt., Dr. Bugby, Junior, of Littleton, N. H., Dr. Baynton, of Lisbon, N. H., and the attending physician, Dr. Wells, of Franconia.

The temperature of the room was brought up to eighty degrees, and maintained there during the operation. An abundance of steam was generated from shallow basins on the stove, in order that the peritoneum might not suffer from dryness. The white of an egg, diluted with water, and moderately warm, was prepared for the fingers and instruments which were to come in contact with this delicate membrane.

Everything being prepared, Mrs. R. went upon the table with a smile, and indicated her perfect composure by a steady pulse of 72. Chloroform was administered by my father, the patient coming under its influence quietly and without excitement. Dr. Wells on one side, and Dr. Bugby, Jr., on the other, by a firm, but gentle pressure of the hands, supported the abdomen. I commenced the operation by making an incision four inches in length, extending from the left side of the umbilicus through the linea alba to the pubes. This incision extended as far as the peritoneum. A small opening having been made through that membrane, the patient commenced vomiting, and I was obliged to discontinue the use of the knife. In four or five minutes, the stomach having become quiet, I passed a male catheter between the abdominal wall and the surface of the tumor, in order to sweep the whole anterior surface, and thus ascertain how far adhesions existed. There was a firm connection at the umbilicus, which it required considerable force to separate—an omental attachment, which was broken up by torsion—and a slight adhesion to the diaphragm, which the beak of the catheter separated.

I now divided the peritoneum throughout the whole extent of the wound, and passed a sail needle, armed with a doubled thread, through a fold of the anterior wall of the cyst, in order that I might thereby make tension in effecting its removal. The wall, however, proved very thin, and the loop tearing out, the contents of the tumor began to escape. Directing the assistants on either side to maintain their pressure, I seized the cyst with my fingers and withdrew it as far as possible, directing the flood over the right side of the patient on to the table and floor. About three gallons of an extremely glairy, tenacious fluid escaped in this way. None of it, however, found its way into the abdominal cavity, and I now renewed my attempts to dislocate the tumor.

On introducing my hand, I could feel a symmetrical tumor over the fundus of the uterus, apparently immovable. Firm tension by the cyst seemed to have no effect upon it. At length, requesting my father to introduce his finger under the right extremity of the tumor, using it as a lever, I seized the cyst with both hands, and by our combined efforts we succeeded in dislodging the solid part

of the tumor, which had been thus firmly located beneath the promontory of the sacrum.

I now found that the tumor was attached to the right ovary, and involved both the broad and round ligaments. With my nail, I divided the round ligament, removing a portion with the tumor, and by the same means separated the broad ligament until the nutrient portion of the pedicle of the tumor was reduced in width to about an inch and a half. I then elevated the tumor as far as possible with both hands, and my father passed a needle, armed with a double ligature, through the centre of the pedicle, and tied firmly both ways. I then surrounded the whole pedicle with a very strong ligature, and released the tumor from its attachment by the knife.

I now introduced bits of old soft linen into the abdomen until they ceased to be stained; then bringing the edges of the wound together, I introduced three silver sutures as far as, but not involving the peritoneum. A twisted suture was employed at the lower angle of the wound, to which the ligatures were firmly tied. A soft compress was placed over the wound, and retained by a swathe passing around the body. The operation occupied about thirty-five minutes, and in an hour from the time the patient was placed on the table she was removed to her bed. The skin was moderately moist throughout, and at the conclusion of the operation the pulse was only 80—in fact, there was scarcely any appreciable shock.

The patient took a quarter of a grain of morphia, and subsequently took one-eighth of a grain every two hours until night. She vomited several times during the afternoon, and her pulse gradually came up to about 100. By placing the hands firmly but gently on the bowels, the vomiting did not disturb the wound, and this precaution was taken whenever there was any sign of retching afterwards.

6 o'clock, P.M., patient vomited. 8 o'clock.—Took morphia. 8½ o'clock.—Vomited; pulse 104. Finding that the pulse was increasing in frequency, I determined to resort to the veratrum viride, in the hope that by quieting the heart's action I might obviate the tendency to peritonitis.

9½ o'clock.—Patient took three drops of the veratrum; a gill of water was drawn by the catheter; pulse 108. 10 o'clock.—Sleeping. 11 o'clock.—Took morphia; complained of pain. 11¾ o'clock.—Pulse 100; no pain. 12½ o'clock.—Took three drops of veratrum; pulse 104.

Aug. 29th, 2 o'clock, A.M.—Took morphia; has been awake for the last half hour, but is free from pain. 2½ o'clock.—Pulse 96. 3½ o'clock.—Took three drops of veratrum; pulse 100. 5 o'clock.—Pulse 92. 5½ o'clock.—Took morphia; pulse 96. 6¼ o'clock.—Took three drops of veratrum; pulse 88; respiration 12; complains of no pain. 8 o'clock.—Pulse 88; no pain; took morphia.

8½ o'clock.—Vomited freely a thin fluid and mucus. 9½ o'clock.—Took three drops of veratrum; pulse 82. 11 o'clock.—Pulse 84; no pain; vomited bilious matter; pupil contracted. 11½ o'clock.—Gave an injection of twenty-five drops of laudanum in a little starch.

1 o'clock, P.M.—Took two drops of veratrum; slight pain; pulse 80. 1½ o'clock.—Vomited bilious matter; pulse 84. 2 o'clock.—Took morphia; pulse 80; pain in the region of the stomach. 3 o'clock.—Gave laudanum injection; pulse 80; pain in epigastrium. 4½ o'clock.—Took two drops of veratrum; pulse 84. 5 o'clock.—Had bilious vomiting and eructations, with relief. Took morphia. 7½ o'clock.—Took four drops of veratrum; gave laudanum injection; pulse 84. Pain and oppression about the stomach.

Patient has slept at intervals during the day—and has been thirsty. Vomiting has seemed to afford relief. There is no swelling nor tenderness of the bowels. The wound is dry and clean, and the sutures show no signs of irritation. Patient has had no pain whatever in the region of the wound during the day. The urine has been drawn by the catheter four times since the operation, and the quantity is larger than before. The pupil has been contracted during the whole day, and the skin moderately warm. The temperature of the room has been maintained at from 70° to 75°. She slept most of the time, until midnight, when more urine passed, and a laudanum injection was given. Pulse 84.

Aug. 30th, 1½ o'clock, A.M.—Patient vomited freely; pulse 80. 2½ o'clock.—Sleeping; pulse 84; respiration 10. 3½ o'clock.—Vomited. 4 o'clock.—Has been sleeping; gave laudanum injection; pulse 78. 6 o'clock.—Pulse 80; skin natural; respiration 12.

This morning I was obliged to return home, a distance of some sixty miles; but a careful journal was kept of the case by Dr. Wells, assisted by the patient's husband, from which I have condensed the following report:—During the remainder of the day until midnight, an injection of starch, containing from fifteen to twenty drops of laudanum, and from two to three drops of veratrum, was administered every three hours. The frequency of the pulse was noted every hour. It was at one period of the day only 70, the average being about 76. Once only, on suddenly awakening from a frightful dream, the pulse indicated 84, which was its maximum for the day.

During the early part of the day the number of respirations per minute was 10; the maximum 15, and the average 12. The skin was moderately warm, and the urine was drawn several times by the catheter. A dark menstrual fluid showed itself at intervals, attended by considerable pain in the loins and hips. The patient slept more or less, and at night was treated to a hot sponge bath.

Aug. 31st.—During the first half of the day, the pulse was steady at 72; it came up to 84 in the afternoon, and at midnight it was

100. The injections of starch, laudanum and veratrum were exhibited every four hours. The patient slept the greater part of the time. There was much less thirst after the medicines were introduced by the rectum, and no vomiting until this afternoon. She took a little beef tea in the morning, but, in the after part of the day, vomited several times. The bowels also became tympanitic, and she experienced pain in the stomach, bowels, and back. Everything introduced into the stomach began to occasion distress.

Sept. 1st.—I returned to my patient again last night, and found her somewhat depressed. During this day the pulse ranged from 96 to 100. The respiration was from 12 to 16. Injections were resorted to as before, every four hours. The patient bore firm pressure on the bowels, although they were tympanitic. She suffered comparatively little pain, and healthy pus discharged around the ligatures. She took small quantities of beef tea through the day, although the stomach was irritable, and vomiting frequent.

Sept. 2d.—Mrs. R. had a pulse to-day ranging from 92 to 100. Her respiration was most of the time at 12, although occasionally dropping below that number. Four injections were given during the first sixteen hours of the day, the quantity of laudanum and veratrum being gradually diminished. The last night was a restless one, the bowels being swollen, tympanitic and painful. Nausea and vomiting were of frequent occurrence. At 6 o'clock, P.M., the extremities suddenly became chilly, and the skin cool and clammy. Severe pain ensued, excessive vomiting occurred, and the patient for the first time expressed her belief that she should die. The pulse was feeble, and the whole system much prostrated. The laudanum and veratrum were of course abandoned. A hot rock was placed at her feet, friction used about the limbs, and carbonate of ammonia and whiskey given by the mouth. She vomited, however, almost incessantly, and complained of great distress at the stomach. After repeated efforts to exhibit stimulants by the stomach, injections of beef tea and carbonate of ammonia were resorted to, with good results.

Sept. 3d.—Until one o'clock this A.M., the distress of the patient from nausea and vomiting continued unabated. From this time until ten o'clock, A.M., the patient was permitted to take absolutely nothing into her stomach. The abdomen was tympanitic, tender and painful. The patient was restless and anxious.

With the assistance of Dr. Wells, I prepared an injection consisting of the tinctures of assafœtida and valerian with the oil of turpentine, using molasses as a vehicle. This soon passed off, bringing away a great amount of flatus and a small quantity of fecal matter. At ten o'clock, A.M., we commenced giving a few drops of whiskey with beef tea every hour. During the day the movement of flatus would occasionally give rise to sharp pain. There was also some pain in the vicinity of the wound. As there were borborygmi, together with pain and distension of the bow-

els at night, an injection similar to that of the morning was exhibited. This brought away a large amount of flatus, with relief, and the patient passed a comfortable night, sleeping at one time two hours. During the latter part of this day the pulse ranged from 92 to 100, the respiration was 16, and the tongue covered with a yellowish fur.

Sept. 4th.—At six o'clock, A.M., Mrs. R.'s pulse was 83; respiration 20, skin warm, and the tongue moderately coated. The wound was looking well, and healthy pus escaped from around the ligatures. The fulness of the bowels was much reduced, and the tenderness had almost wholly subsided. Three days ago I removed the twisted suture at the lower angle of the wound, and found that immediate union had taken place. She continued quite comfortable through the day, taking stimulants and beef tea. She was occasionally troubled with colic-pains, but felt, on the whole, quite bright.

Sept. 5th.—I left my patient this morning and returned home, but her condition was as follows:—The pulse ranged from 86 to 96—and respiration was steady at 16. She took chicken broth, with other simple nourishment. She expressed a desire for food. The wound discharged healthy pus, and she slept at intervals. Occasionally there were sharp pains in the region of the wound.

Sept. 6th.—To-day the pulse came up to 104—the respiration to 22, and the patient showed a disposition to sink. The bowels again became tympanitic, and there was anorexia. Sulphate of quinine was exhibited in grain doses, together with a little whiskey. An antispasmodic injection was employed with some relief. A small dose of castor oil was given, which operated moderately. The night was restless, and painful.

Sept. 10th.—I returned to Franconia to-day, and found Mrs. R. with a pulse of 112, and feeling feeble. I remained with her three days, and gave her quinine and whiskey freely. Rich broths, oysters, and finally broiled chicken and steak, were given at short intervals. On the 8th, I removed the silver sutures, which had remained without irritation eleven days, and found that the wound was thoroughly united.

On the 9th, there were still symptoms of depression, the pulse and respiration being a good deal accelerated. In moving the ligatures a considerable quantity of pus escaped, as though it might have been pent up. Thinking the signs of depression might be owing to an accumulation in the peritoneal cavity, I supported the abdominal wall with both hands, and directed the attendants to turn the patient on her side. A little pus escaped at first, and then about *two quarts* of serum flowed out by the ligatures. The pulse and respiration diminished in frequency, and the appetite returned almost immediately. Stimulants, quinine and a generous diet were freely resorted to.

On the morning of the 10th, before leaving my patient for the
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last time, I made gentle tension on the ligatures, and brought them all away. This was the fourteenth day after the operation.

On the next day she was put into a chair without inconvenience, and continued to get up daily ever afterwards. Her only subsequent annoyance was from colic pains.

Five weeks after the operation, Mrs. R. was able to dress herself and direct her household affairs. At the end of seven weeks she was able to do her own work and ride three miles to church.

Under date of Jan. 25th, I received a letter from Mrs. R.'s husband, from which I make the following extracts:—

"My wife appears to be as well as she ever was, and I think is as heavy as ever. There has been no menstruation since the dark muddy fluid which you saw just after the operation. She feels well, and eats well."

It remains that I should speak briefly of the tumor. The great bulk of it consisted of a single cyst. The more solid portion was made up of several minute vesicles, which would doubtless have developed, had the disease continued, and have rendered the tumor distinctly multilocular in character. The solid portion weighed a little more than three pounds, and the glairy contents a little less than twenty-five pounds; thus making the weight of the whole mass removed, *twenty-eight pounds*.

A few considerations, and I have done. The disease of the ovary in this case had existed something more than five years, during which time the cyst was making a constant drain on the fluids of the body. During the period indicated above, Mrs. R. lost at the hands of the surgeon about *four hundred and seventy-five pounds* of fluid. Yet notwithstanding this, her general health is reported as having been good most of the time during the existence of the disease.

It will be remembered that at one time, under the influence of diuretics, a profuse diuresis occurred, and the tumor was diminished one half in size. The generally received opinion has been that an accumulation of fluid in an ovarian cyst is independent of the action of diuretics. My belief is, that in this case a slight rupture of the cyst occurred, and part of its contents escaped into the cavity of the peritoneum. A small obscure cicatrix on the wall of the cyst would seem to corroborate this view.

Finally, the persistent vomiting in this case merits a passing notice. It was excessive during the first week, and the amount of fluid ejected from the stomach, very greatly exceeded the amount swallowed. No doubt the chloroform, the opium, and the veratrum might have given rise to vomiting, but not, I think, to the extent which existed in this case. My rationale would be this:—For five years the patient's system had been habituated to a constant drain daily. Now after the operation the quantity of urine was only slightly increased, nor was there any unusual excretion either from the bowels or skin. Under these circumstances, may we not sup-

pose that the vomiting of this large amount of fluid was not an effort on the part of nature to compensate for the sudden suppression of a long-established drain?

In closing this report, I should do myself injustice did I not take occasion to express my thanks to the medical gentlemen who were present and assisted at the operation—and especially to Dr. Wells, who so materially aided me in carrying out the details of Mrs. R.'s case.

Hanover, N. H., March, 1860.

RESEARCHES UPON THE ERECTILE ORGANS OF THE FEMALE.

[Translated for the Bos. Med. and Surg. Journal, by WM. READ, M.D.—Continued from p. 153.]

THE type of the apparatus essential for generation, in the vertebrata, situated at the lowest step of an ascending scale, that is to say among fishes, presents two varieties, which are in some sort the repetition of what we observe in the invertebrata. The eggs of the *myxines*, the *lampreys*, and most species of the *murenoids* and all the salmonides, detach themselves from the ovarian mass and fall into a cavity (peritoneal) lined with a vibratile epithelium, and communicating externally by exclusive openings (peritoneal canals). The analogy is evident with what happens in the majority of the radiata (polypi, medusæ), and among bryozoons and acephalous mollusks, &c., in whom the eggs fall from the ovary into a cavity (*cavity of the body, bronchial cavity*) which communicates freely with the exterior.

The majority of the bony fishes, however, have their generative system constructed after a type analogous to what we observe in the articulata. This type, in the more highly organized species, is common to all those systems which elaborate a product intended to be transmitted externally. The eggs develop themselves upon the parietes, more or less complex, of a special cavity having the form of a sac or a funnel-shaped tube, and opening itself in the most direct course externally. A more or less complete muscular envelope is attached to the glandular apparatus constructed after this type; the generative system of fishes forms no exception to this rule, and it has been now for a long time known that the ovary of fishes had a muscular envelope which sent off into the interior of that organ partitions of the same nature. See Stannius, *Anat. Comp.*, 2, 138.—Leydig (*Lehrbuch der Hystologie*, 508) has observed muscular fibres penetrating the envelope and the stroma of the ovary in the species *Esox*, *Perca* and *Salmo*. My own investigations have led me to the same results in the *lamprey*, the *tench*, and many species of *squales*, &c.

This fact, of the highest importance in the history of this function, has remained entirely neglected, and no one has attempted to connect it with what we observe in the other vertebrata. In my

case, at the time I discovered the muscular nature of the envelope and the stroma of the ovary of the higher vertebrata (see Comptes-rendus of the Acad. of Sciences, June, 1856), I was led to it by every other consideration than its analogy with what we see in the bony fishes. The reason of this neglect without doubt is to be found in this, that beginning at the higher fishes (plagiostomes) the type of the internal generative system presents itself under an aspect altogether peculiar, and in appearance absolutely different from that which we observe in the bony fishes. There exists a special duct for the transmission externally of the product developed in the ovary, but this canal is no longer continuous with the ovary, and is sometimes separated from it by a very considerable space. Moreover, this duct is sometimes immovable, and sometimes susceptible of a change of form or position. This arrangement is the type of the internal generative system of all the vertebrata, except the bony fishes and the cyclostomes.

To this isolation of the ovary and its excretory duct, there corresponds a very peculiar arrangement of the muscular system, a complex arrangement, which, studied through the medium of its different modifications, under the conditions essential to its existence, gives the key to the problem which we are studying.

Before commencing this study, it is necessary to establish two general propositions, which I have already laid down (See my *Researches upon the type of the generative organs*, &c., pp. 19-20), and which are confirmed by the description of the muscular tunics of the vagina, the uterus, and the vesiculæ seminales, &c. The first of these propositions is relative to the connection between the muscular system and the reservoirs or canals which they surround; we believe, generally, that the muscular coat of the hollow viscera moulds itself exactly to their form and dimensions, as for instance in the small intestine, the urinary bladder, &c. This is not true, most frequently, except with regard the internal muscular layer; since in the greatest number of cases, the internal muscular envelope shows itself more or less independent of the organs which it encloses and covers. Thus the longitudinal fibres of the large intestine, far from accommodating themselves to the form and dimensions of the mucous tube, greatly modify it; at the neck of the gall-bladder, the longitudinal fibres do not follow the curvatures which this point describes, but determine and maintain them. The two vesiculæ seminales, in man, are enclosed by a common muscular membrane, which, entirely independent of the particular form of these organs, is constructed upon exactly the same plan as the muscular envelope of the cavity of the uterus in the woman. The second proposition relates to a general law which Thompson, first of all, pointed out, but in an imperfect manner. This is, that the muscles of organic life, at their terminal extremity, invariably connect themselves with some part of the locomotive system of animal life, not exclusively, as this excellent anatomist has advanced, with

the bony skeleton, but more frequently perhaps with the tendons, with their muscular aponeuroses, with the body of the muscles themselves, without indeed really continuing themselves among their fibres, any more than a muscle which fixes itself upon a bone continues itself into the osseous substance.

Let us now apply these general ideas to the consideration of the muscular system of cartilaginous fishes, of reptiles, of birds and of the mammalia.

Plagiostomes—Squalus Acanthias.

The ovaries placed at the superior and lateral portion of the abdomen, and partly covered by the liver, are fixed to the muscular parietes, by means of a mesoarium (*ovarian ligament*) composed principally of a double layer of muscular fibres, smooth, thick and resisting, which envelope the organ and send off into its substance prolongations which intersect each other and form a kind of sponge among the areolar spaces in which the ovules are disseminated. The oviducts and the uterus are alike attached to the parietes of the trunk by a *meso-metrium* (broad ligament) composed principally of tendinous fibres, parallel to each other, which are continuous with the muscular fibres. The terminal extremity of the two oviducts united in one single funnel-shaped fimbriated extremity, is attached to the superior portion of the abdominal cavity, immediately beneath the diaphragmatic partition between the convex face of the liver and the anterior abdominal wall. The common orifice of this double tubular funnel, looks behind; one muscular projection attaches itself to the abdominal parietes; another to the convex surface of the liver; both these in contracting dilate the orifice; but the opening itself fixed in that position, always remains separated from the ovaries by the whole thickness of the liver, even in the greatest state of development.

The eggs, expelled from the ovary by the contraction of the muscular fibres of the *mesoarium* (ovarian ligament) and the stroma, are not immediately received by the oviduct; they fall at first into the peritoneal cavity, and, as the eggs are of considerable size, and often as large as a hen's egg, the contractions of the abdominal parietes push them as they do an intestinal hernia, towards the only free orifice which the cavity presents towards the common orifice of the oviduct, gaping and dilated.

The mechanism of this migration of the ova is, as we see, very imperfect, so that it is not unfrequent that they do not arrive at all at their normal destination. In a female of the *squalus acanthias*, which carried four young, full grown, in one uterus and three in the other, I found, in the peritoneal cavity, three ova very large but not developed, and round about which, local peritonitis had produced congestion and abnormal adhesions. One of these ova was adherent to the inferior portion of the abdomen, the other two had contracted adhesions with the surface of the left ovary.

[To be continued.]

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, MARCH 29, 1860.

For a long time we have noticed with regret a marked change in the character of the contents of our daily papers. Some years since, certain matters were considered unfit for publication, except in the lowest journals, the presence of which in any respectable family would have been regarded as a disgrace. Now, however, it is almost impossible to find a newspaper which does not contain, upon every page, something which should never meet the eye of any member of a household.

It was, therefore, with no little pleasure that we read some remarks upon this subject by Dr. Ray, in his report on the Butler Hospital for the Insane. After calling attention to "the unquestionable fact that insanity is increasing in all civilized communities," he speaks of the influence of the law of imitation upon the human mind, and very justly remarks that—

"The slightest examination of this our modern life will show us a host of agencies belonging to the ordinary routine, which, by means of this law of sympathy and propensity to imitation, produce an unhealthy tone of feeling, which not only deranges the proper order and balance of the moral sentiments, but often terminates, at last, either in unequivocal disease, or in conduct where the element of moral depravity is mingled in some uncertain proportion with that of cerebral disorder and disease. In no age of the world, have these agencies been so effective or so numerous, as at the present. Far above and beyond all others is that of the press, whose power, during the last sixty years, has been extending at an unexampled rate. There is not a single phasis of human passion, not a single combination of its various elements, not a single development of its slumbering activities, not a single abnormal deviation from its ordinary channels, not a single manifestation of its effects on actual life, which is not displayed by the public press in the strongest colors which an ambitious rhetoric can give it. And thus, too, those sad and fearful chapters in human experience which, though filled with woe to the parties immediately concerned, once were scarcely known beyond the limits of a little community, are now presented to every reader in the land, with every circumstance that can add force or piquancy to the narrative. The columns of a single newspaper, without exaggeration, it may be said, contain more materials for stirring the sympathies of men, for good or for evil, than the unwritten lives of countless multitudes. They occupy the leisure moments of thousands, which would otherwise be given to listless rest, and furnish inexhaustible materials for thought or emotion—the only kind, perhaps, which they ever obtain. The ephemeral sheet which to-day is, and to-morrow is cast into the oven, goes forth on the wings of the wind, scattering its heterogeneous influences upon every description of person. A murder or a suicide, a breach of trust or an audacious robbery, committed in the obscurest corner of the land, is proclaimed to all the world. The details of a disgusting criminal trial, exposing the darkest aspects of our nature, find an audience that no court-room less than a hemisphere could hold."

"It is a common impression that the newspaper merely ministers to the natural curiosity of men to know what is passing around them; but it has another and a far more important effect. It is not every occurrence, whose communication to the world can be productive of unmingled good. For reasons just given, no small proportion of those which are thrust upon the reader's attention, leave a positively unhealthy impression; and when we consider that, besides the multitudes who, in addition to other reading, never pass a day without looking over a

newspaper, there is a scarcely smaller number who read nothing else, we may get some faint idea of the magnitude of this result. The details of vice and crime which occupy so large a space in the daily sheet, repeated day after day, familiarize the mind with their hideous features and thus blunt the edge of its finer sensibilities. The effect of it all is, that the mind not only becomes careless of moral distinctions, but incapable, in some degree, of perceiving them; its relish for the simply good and beautiful and true, is lost, and in its place we find an insatiable craving for what will create a strong sensation, and a positive sympathy, perhaps with wrong, and wrong-doers. By a well-known law of the animal economy, excessive activity of a function leads, at last, to a morbid condition of the organ; and thus it is that this kind of mental activity becomes a prolific source of cerebral disorder—not of the more palpable forms, such as inflammation or softening, but of a degree of irritability or abnormal erythism which often terminates in overt disease."

With the best of intentions, he partially exonerates the press in the following words:

"Far be it from me to lay the blame of all this mischief at the door of those who manage the newspaper-press. In responding to the call which is made for the kind of news in question, they believe, honestly, no doubt, that they are complying with a reasonable wish, and laboring worthily in their vocation. It is not for them, in exercising this function, to scrutinize too closely the remote and indirect effects of what they communicate, upon the minds of their readers. The fault really lies in the public taste which craves and demands such reading; and the true remedy consists, not in blaming the people connected with the press, or addressing to them philosophical reflections on the operations of the mind, but in refining and elevating the public taste, by improving our methods of education, and multiplying the means and appliances of a higher and sounder cultivation. This, certainly, is not very specific, and promises no immediate relief; but so it ever must be with all reforms that affect the exercise of the passions and propensities."

We sincerely hope that such words, however kindly in their tone, may be regarded as a decided reflection upon the editorial corps. It is no compliment to tell them that they are always to *follow* and never *form* the public taste; that they may legitimately vary their standard of morality in accordance with changes in public opinion; that, instead of using their almost unlimited power for the benefit of mankind, they may exert it in promoting the worst of causes, and be the most active agents in the demoralization of society.

There are but three sources to which this great evil can be traced:—to a belief, on the part of editors, that what they furnish is to be a real benefit to those who read; to negligence; or to the trading spirit, which is always ready to sell anything which the most morbid appetite may crave.

That the first is true, we have not the credulity to believe; the second may happen occasionally, but will not explain the vitality and persistence so strongly manifested; the third is, probably, in most instances, the only correct solution.

If the true remedy consists, as we are told above, "in refining and elevating the public taste," what more potent element can we call to our aid than this same public press, and, if this fails us, where shall we look for help? Those who thus have the power of purifying or corrupting the minds of the people should, we think, receive the first attention, and be taught, if they do not understand it now, the responsibility which rests upon them.

THE WESTFORD VACCINATION CASES.—When we last alluded to this subject, we hazarded the opinion that the decision of the coroner's jury, based, as we certainly had reason to suppose it would be, upon competent medical testimony, would have at least the merit of fairness and impartiality; but we see by the papers that the "six wise men" of the unlucky town of Westford, have, as far as we can understand the case, rendered a verdict, at least in all that relates to the material used in vaccination, so entirely at variance with the history of the cases, and with the opinions of the most trustworthy medical men whose testimony was given, as to show the strongest evidence of prejudice and presumption on their part, and of a determination to transfer as much of the blame as possible beyond the limits of their own town.

When the opinions of Drs. Gilman Kimball, Graves and Allen of Lowell, and Drs. Bigelow, John Ware, Homans, Cabot and Borland of Boston, all disinterested and unprejudiced witnesses, to say nothing of the clear and satisfactory opinion of Dr. Clark, which was based upon the statements and admissions of Dr. Buttrick himself, and was alone sufficient to satisfy every intelligent man, are to be counted and not *weighed* against those of Drs. Buttrick, Burnham, Brown, Hooke, and others, for whom the coroner or some of the jurors are *known* to have, in violation of their oath, expressed a decided preference, we could, of course, expect nothing better than the unlooked-for and perverse result to which the coroner's jury have arrived. The whole case, as we understand it, and as we believe it will generally be understood, only goes to prove the necessity and propriety of securing as coroners, not only in Boston, but everywhere, *competent medical men*, and of showing the people generally, and legislators in particular, the importance, if they have any regard for the lives and health of those who depend upon them for protection, of alone permitting properly accredited, well educated, and discreet men to engage in the practice of medicine.

We are far, however, from believing for a moment that this verdict, whatever may be its effect locally, or among the ignorant, will abate one jot of the confidence of the profession in the purity of the material furnished at the office of the City Physician, or of the community in general in the entire efficiency and integrity of this officer. Dr. Clark owes it to himself, however, as well as to the profession, that the matter undergo a thorough medical, as well as legal, investigation, that the public may at least have the benefit of *all the evidence* which bears upon the case, as well as of the judgment of those best qualified to express an opinion upon a subject of so much gravity and importance.

We are glad to give place to the following statement of Dr. Clark, published in the *Boston Courier* of Monday evening, appended to which are the certificates of Messrs. Foye, O'Connell and Grainger, students of Dr. C. These need but to be read to convince any candid mind of the entire groundlessness of the charge implied in the recent verdict at Westford.

"1. That no vaccine points or crusts have ever been issued from this office which were not derived from children who were known to be free, not only from erysipelas, syphilis, and scrofula, but who were also otherwise healthy.

"2. That every child from whom crusts are or have ever been taken, are always

seen at least twice; at the time of vaccination, and as late as a week, and often ten days after, so that it is positively certain that no one of them had erysipelas during the progress of the vaccine affection.

"3. In none but perfect cases are the crusts taken, or the parents requested to send them back to the office.

"4. When received, if not found to be perfect they are rejected.

"5. The crusts, three in number, sent to Westford, were in every respect regular in form, color, consistence, and, in fact, the best that could be selected by Mr. Foye, my student, from a large number, all of which had been repeatedly examined and approved.

"I am quite confirmed, by all the respectable medical men who are conversant with the facts in this case, in my opinion, already previously expressed, that the unfortunate results which followed its use are in no degree attributable to the character of the matter as it was originally furnished, but to other causes entirely independent of it. I therefore pronounce the charge to be grossly libellous, and, in every respect false and without foundation.

"I respectfully ask attention to the following certificates.

HENRY G. CLARK.

Certificate of Mr. Foye.

"BOSTON, March 24, 1860.

"The undersigned, for the past three years a student of medicine with Dr. Clark, respectfully states:

"That no matter has even been taken or crusts preserved in this office, except from clean and healthy children of most respectable parentage.

"That he remembers distinctly putting up the quills and crusts for Westford, and that the crusts were of a bright mahogany color, perfectly free from any extraneous substances, and as good and perfect as he ever saw. That the children from whom they were taken were seen each of them twice, and that none of them had erysipelas, or any cutaneous or other disorder. That he has, during the period of his pupilage, been present and assisting at the vaccination of more than ten thousand persons, not one of whom, to his knowledge, has been made sick by vaccination, or had a bad arm.

"More than three thousand supplies of matter, in points and crusts, have been gratuitously furnished to physicians in this city, as well as to the public institutions, from not one of whom has he ever heard any complaint as to the quality of the matter.

"That the greatest care has always been taken by Dr. Clark in the selection, propagation, preservation and distribution of the vaccine material, and that he has taken unwearied pains to renew and preserve its qualities uninjured by time or by transmission.

"That, therefore, he knows the charge of the Westford people, so far as it relates to this office, to be entirely false and groundless.

JOHN W. FOYE.

"BOSTON, March 24, 1860.

"The undersigned, students in the office of the City Physician, are able, from their own knowledge, and do hereby confirm all the above statements.

(Signed)

P. A. O'CONNELL,
REED BARTLETT GRAINGER.

HEALTH OF BOSTON.—It appears from the mortality table that there were 89 deaths during the past week, an increase of 21 over the week previous. In the ten years 1850-60, the average number of deaths in the week corresponding was 72.3—but as the deaths returned last week occurred in an increased population, the average, to admit of comparison, should be raised proportionally to the increase, namely, to 82.5. The deaths of last week, therefore, exceeded the true average. There were three deaths only from smallpox.

CLEVELAND (OHIO) MEDICAL COLLEGE.—At the recent close of the Session of 1859-60, in this institution, the Commencement exercises took place, and 18 graduates received the degree of M.D. The honorary degree was conferred on Rev. N. L. Lord, Jaffna, Ceylon.

SHELBY MEDICAL COLLEGE, NASHVILLE, TENN.—The Annual Commencement exercises of this new Medical School took place recently, the valedictory address to his fellow students being delivered by Dr. Hunter, and the farewell address on the part of the faculty by Prof. Maddin. Nine of the class (which consisted of 75 students) were graduated.

SMALLPOX IN SCOTLAND.—The Registrar-General for Scotland tells us that smallpox spread considerably during the last month, and cut off no fewer than 113 persons in the eight principal towns from which his statistics are derived. For its size, Greenock has suffered most severely from this disease, the deaths from smallpox during the month being above 15 per cent. of the mortality. In Glasgow, also, the disease has greatly extended, and the deaths therefrom constitute 6.2 per cent. of the mortality of the city during the month. Most of the deaths occurred amongst the unvaccinated; a very few of the deceased were reported to have been vaccinated by midwives and others, but it was in most instances questionable whether the vaccine pustule had been perfect.—*Lond. Lan.*

DIPHTHERIA.—Dr. Crichton, M.D.Ed., records the results of 45 cases of diphtheria occurring in his practice. Out of this number 9 proved fatal, or 1 in 5; of these, 6 died of asphyxia, with membranous exudation in the air-passages; and 3 by pure asthenia. They were instances of faucial diphtheria. In one case (aged one year and nine months) vulval diphtheria occurred. The mean age of the fatal cases was within a fraction of seven years.—*Ibid.*

THE LATE DR. TODD.—A meeting of the friends of the late Dr. Todd was held at King's College, London, on the 16th of February, with a view of establishing some memorial of him in connection with the institution of which he was for so many years the distinguished Professor of Physiology.

MARRIAGE OF COUSINS.—Governor Magoffin, of Kentucky, recommends the legislature of that State to prohibit by law, under severe penalties, the marriage of cousins. He says that the imbecile, insane, deaf mutes and blind in the different asylums of the State, who are the offspring of cousins, is from sixteen to twenty per cent of the whole number; and he claims that it is the right and duty of the State to protect herself against the evil and expense, by forbidding such unions, which nature plainly forbids by the natural penalty she uniformly inflicts.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 24th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week, ...	47	42	89
Average Mortality of the corresponding weeks of the ten years, 1850-1860, ...	38.7	33.6	72.3
Average corrected to increased population, ...	..	..	82.5
Deaths of persons above 90, ...	..	..	..

Mortality from Prevailing Diseases.

Consumption.	Croup.	Scarlet Fever.	Pneumonia.	Measles.	Smallpox.
23	2	3	7	0	3

METEOROLOGY.

From Observations taken at the Cambridge Observatory.

Mean height of Barometer, ...	29.813	Highest point of Thermometer, ...	53
Highest point of Barometer, ...	30.498	Lowest point of Thermometer, ...	20
Lowest point of Barometer, ...	29.407	General direction of Wind, ...	Westerly.
Mean Temperature, ...	34.77	Whole am't of Rain in the week	very little.

Deaths in Boston for the week ending Saturday noon, March 24th, 89. Males, 47—Females, 42.—Apoplexy, 2—inflammation of the bowels, 1—bronchitis, 2—congestion of the brain, 2—disease of the brain, 1—inflammation of the brain, 1—burns, 1—consumption, 23—convulsions, 2—croup, 2—dysentery, 2—dropsy, 2—dropsy in the head, 3—drowned, 1—debility, 3—puerperal disease, 2—erysipelas, 1—bilious fever, 1—scarlet fever, 3—typhoid fever, 1—disease of the heart, 2—hæmorrhage (uterine), 1—influenza, 1—insanity, 1—intemperance, 3—congestion of the lungs, 1—inflammation of the lungs, 7—disease of the liver, 1—marasmus, 2—old age, 1—palsy, 1—pleurisy, 1—sore throat, 1—smallpox, 3—syphilis, 1—thrush, 1—unknown, 5.

Under 5 years, 35—between 5 and 20 years, 5—between 20 and 40 years, 26—between 40 and 60 years, 15—above 60 years, 8. Born in the United States, 53—Ireland, 25—other places, 6.